CLAIMS

1. A method of etching a semiconductor device having a fuse embedded therein beneath different first and second sets of material, comprising:

(a) first etching at least a first set of material from a first region of the semiconductor device, from the surface of the first set of material in towards the embedded fuse;

(b) measuring the remaining distance between the embedded fuse and the first etched surface of the first region of the semiconductor device;

(c) second etching an amount of the second set of material from said first region of the semiconductor device, from the first etched surface of the first region further in towards the embedded fuse, the amount of the second set of material being determined based on the preceding measurement of the remaining distance;

(d) measuring the remaining distance between the embedded fuse and the second etched surface of the first region of the semiconductor device; and

(e) determining if the remaining distance measured in step (d) falls within a desired range of distances and, if the remaining distance does not fall within the desired range, returning to step (c).

2. The method of claim 1, wherein the first etching further etches at least an amount of the second set of material.

3. The method of claim 1 or 2, wherein one of the first and second sets of material comprises at least a passivating layer and the other of the first and second sets of material comprises at least one oxide layer.

4. The method of claim 3, wherein the first set of material comprises the passivating layer.

5. The method of claim 3 or 4, wherein the other of the first and second set of material comprising at least one oxide layer further comprises at least a second oxide layer.

6. The method of any one of claims 3 to 5, wherein the other of the first and second sets of material comprising at least one oxide layer has uniform diffraction characteristics.

7. The method of any one of claims 3 to 6, wherein the passivating layer comprises a nitride layer.

8. The method of any one of the preceding claims, wherein the desired range of distances is 4000-12000Å (4 - 12 x 10^{-7}m).

9. The method of any one of the preceding claims, wherein the fuse is a metal fuse.

10. The method of any one of the preceding claims, wherein the fuse is a laser fuse.

11. The method of any one of the preceding claims, further comprising blowing said fuse.

12. A semiconductor device having a metal fuse embedded therein, modified by the method according to any one of the preceding claims.